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Richard F. Giunta	HO, THOMAS M

c/o Wolf, Greenfield & Sacks, P.C.,	ART UNIT PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.
09/748,053</td><td>Applicant(s)
BLUMENAU ET AL</td></tr>
<tr><td>Examiner
Thomas M. Ho</td><td>Art Unit
2134</td></tr>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 January 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-66</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-66</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>9/9/05</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

1.   Claims 1-66 are pending.

Response to Arguments

Finality under MPEP 706.07(a)

The Examiner has considered the Applicant's arguments regarding the improper finality

of the previous action and found it to be persuasive. Accordingly the finality of the previous

action is withdrawn.

Rejections under 35 USC § 102 and 35 USC § 112

Applicant has argued: (page 25, last paragraph- page 26, first paragraph)

In the "Response to Arguments" section, the Office Action asserts that the "WWN

comparison made by Hubis can verify the physical connection of the device." Applicant

respectfully disagrees. The WWN is merely a number that uniquely identifies a device and is

independent of how and where a device is connected to a network, and what physical

connections form a path through the network to another device. For example, if a device A with

a first WWN communicates with a data storage device, a particular physical connection through

the network is established. If the device A is disconnected and a device B with a different WWN

is connected in its place, the physical connection through the network will be the same, even

through the WWN is different. Conversely, the same WWN can be presented via different

physical connections through the network (e.g. via spoofing or by a device such as device A

itself, cannot verify a physical connection through the network. Applicant does not disagree that

a WWN could be used to verify a physical connection through the network (e.g, by associating it

with a network configuration ID), however, Hubis does not disclose or suggest performing such

a verification.

The Examiner contends that the disclosure of Hubis where a WWN number is compared would

be able to determine if a different physical connection is being employed. The Examiner

disagrees with Applicant's statement that if a device A and a device B with a different WWN is

connected it is place, the physical connection through the network will be the same. The

physical connection will clearly not be the same, as the hardware used in the physical connection

has now changed. A WWN is a number used to identify any piece of hardware in the world.

Consequently, when a comparison of the WWN of different instances arises in a mismatch, the

mismatch would be indicative of entity attempting to access the network from a different piece

of hardware.

This point of discrepancy is at the heart of why the rejection under 35 USC 112 was rendered.

The Applicant has argued the following with respect to the indefiniteness of the physical

connection: (page 35, middle paragraph):

"The physical connection through the network may include one or more of the physical

connections (e.g. a port on the destination, or switch port, etc.) that are encountered via this link

between source and destination. While the composition of a physical connection may differ from one network to another or from one particular communications link to another, in any given network configuration and communication link between devices, the physical connection through the network can be identified. Accordingly, the term "physical connection" is believed to be definite and Applicant respectfully requests that the rejection be withdrawn."

The Examiner contends however that simply because a physical connection can be identified in the generalist sense, it does not thereby remove all indefiniteness with respect to queries regarding the connection.

The Applicant has stated the physical connection may include such items as a port on the destination, or switch port. However, accordingly to Hubis, *"A World Wide Name (WWN) is a 64-bit identifier (8-byte) with a 60-bit value preceded by a 4-bit Network Address Authority Identifier (NAAI) used to <u>uniquely identify devices, nodes, or ports</u>...for connecting a host computer 101 to a Fibre Channel communications loop."*

In light of this evidence, the Applicant's arguments appear to be contradictory.

The Applicant has explicitly stated:
If the device A is disconnected and a device B with a different WWN is connected in its place, the physical connection through the network will be the same, even through the WWN is different.

While on the other hand, the Applicant has argued that a physical connection may include such

items as a port:

"The physical connection through the network may include one or more of the physical

connections (e.g. a port on the destination, or switch port, etc.)"

It is clear from Hubis and the knowledge of those of ordinary skill in the art that the

WWN also uniquely identifies a port. Thus a comparison where two WWNs are different would

be able to determine a similar or different physical connection between two devices wherein the

definition of physical connection included that of a port.

Thus, the Examiner finds Applicant's arguments unpersuasive.

Claims 1 and 32

The Applicant further argues with respect to claim 1:

(page 26, paragraphs 2-3) The Office Action points to column 12, lines 27-35 of Hubis as

purportedly showing denying attempted access by a device to the shared resource when a

connection through the network is different than a first connection through the network used by

the device to access the shared resource. However, this excerpt merely describes using the

WWN to determine whether the WWN name appears in the permissions table associated with a

target LUN. It does not determine anything about the physical connection of the device through

the network, or whether such a physical connection is the same as or different than that which

was previously used.

Access to the shared storage device in Hubis is determined solely on the WWN, which by

itself is incapable of verifying or otherwise determining anything about the physical connection

of the device through the network. Nowhere does Hubis disclose or suggest "Determining

whether the one of the plurality of devices is attempting to access the shared resource through a

physical connection through the network that is different than a first physical connection through

the network used by the first device to access the shared resource," as recited in claim 1.

Therefore, claim 1 patentably distinguishes over Hubis and is in allowable condition.

The Examiner contends that while it is true that Hubis seeks to identify whether the WWN name

appears in a permission table, the list of WWN in the permissions table is indicative of physical

connections that were previously used. According to Hubis (Column 5, lines 59-67),

"Controller 106 uses novel data structures and a node name, such as the World Wide Name

(WWN), associated with each fibre channel loop 120 device, including a Fibre Channel Host Bus

Adapter installed in each host computer 101, to uniquely identify the host computers that have

logged into controller 106 (A list of valid host computers that have been granted access to each

logical volume, and their corresponding WWNs..."

Thus, Hubis is not merely comparing WWNs to see if they can be found in a table, but is

comparing the WWNs to a list of computers that have previously connected (logged in) or in

broader terms, a list of physical connections that have previously been used.

Claim Rejections - 35 USC § 1,12

2.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 1-66 rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which

is not enabling. The actions necessary to implement the steps of *"determining whether the one*

of the plurality of devices is attempting to access the shared resource through a physical

connection through the network that is different than a first physical connection through the

network used by the first device to access the shared resource" critical or essential to the practice

of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re*

Mayhew, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

The Applicant has argued that comparison of WWN identifiers as a means for determining

whether a physical connection between two devices is insufficient in being able to determine if a

different physical connection is used. Specifically, the Applicant has argued that comparison of

the WWN identifiers cited in the reference is not equivalent to *"determining whether the one of*

the plurality of devices is attempting to access the shared resource through a physical

connection through the network that is different than a first physical connection through the

network used by the first device to access the shared device" as recited in claim 1.

The Examiner initially cited the comparison of the WWN numbers as stated in the reference

because to the best of the Examiner's knowledge, it is by these set of steps that Applicant

achieves the determination of when the plurality of devices is attempting to access the shared

resource with a different physical connection that is different from a first physical connection

used by the first device to access the shared device.

Specifically, in the specification the Applicant has recited

"determining that the one of the plurality of devices is attempting to login to the storage system

through a physical connection through the network that is different than the first physical

connection *when the value of the second identifier presented by the one of the plurality of*

device mismatches the stored value of the second identifier for the first device." (Column 3,

paragraph 1)

Applicant has further recited this in the description of a further illustrative embodiment of the

invention. (page 4, paragraph 2)

"The at least one controller is further responsive to an attempt, after the login by the first device,

by one of the plurality of devices to login to the storage system, while representing itself to the

storage system as the first device, to: examine a value of the first identifier presented by the one

of the plurality of devices to the storage system to determine that the one of the plurality of

devices is representing itself to be the first device; compare a value of the second identifier

presented by the one of the plurality of devices to the stored value of the second identifier for the

first device; determine that the one of the plurality of devices is attempting to access the storage

system through a physical connection through the network that is different than a first physical

connection used by the first device in logging into the storage system when the value of the

second identifier presented by the one of the plurality of devices mismatches the stored value of

the second identifier for the first device;"

It is well known to those or ordinary skill in the art that a WWN or World Wide Name is a

number that uniquely identifies devices, nodes, or ports. Hubis (Column 6, lines 34-56)

Hubis (Column 6, lines 56- 67) recites

The WWN is used to uniquely identify each host computer connected to the Fibre Channel loop

or more specifically each Host Bus Adaptor (HBA) coupling the fibre channel bus to the

processor and memory system in the host computer. Thus, if there are two fibre channel HBAs

installed in a single host computer 101, that host computer will have two WWNs associated with

it, and ***it will be possible to identify not only which host, but also which HBA of the host the***

communication was sent from or should be directed to in response. As the WWNs are

universal and currently exist, an aspect of the invention lies in the use of WWNs to allow access

to a volume of storage based on the WWN."

To the Examiner's best understanding

In fact, to the Examiner's understanding that the Applicant's argument not only conflicts with

the methodology presented in the specification for how the determination is made, but if

maintained as such for further prosecution, will render the device inoperable and/or raise an

additional question of enablement. It is the Examiner's understanding that a comparison of these

identifiers is precisely how the Applicant makes the determination in the first place. Adopting a

position that comparison of these identifiers *does not or cannot* identify when a different

physical connection will render Applicant's description would appear to render the Applicant's

comparison of identifiers deficient in successfully achieving the step of *"determining that the*

one of the plurality of devices is attempting to login to the storage system through a physical

*connection through the network that is different than the first physical connection **when the***

value of the second identifier presented by the one of the plurality of device mismatches the

stored value of the second identifier for the first device."

At the very least, it appears that there are critical steps towards achieving the determination *"that*

the one of the plurality of devices is attempting to login to the storage system through a physical

connection through the network that is different than the first physical connection when the value

of the second identifier presented by the one of the plurality of device mismatches the stored

value of the second identifier for the first device. ", essential to the practice of the invention is not

present in the claims.

4.   Claims 1-66 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

It is uncertain now what Applicant means by the term "physical connection" and "differences in

physical connection". Several different interpretations are possible:

(1) A physical connection may reference the wire for transmission between two computers. For

example, a switch between two computers first uses a coaxial cable, but now employs the usage

of a fibre optic cable. Such a change would meet the definition of different physical connections.

(2) A physical connection may reference different ports that are used by a TCP network

connection.

(3) A physical connection may reference the hardware employed by the communicating entities

employ. Suppose one party makes a connection with Modem A with serial number X. Suppose

that party's modem A breaks, and they use Modem B as a replacement. The network location of

that party remains identical but now employs Model B with serial number Y. Does such a

change result in a different physical connection?

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 1- 66 are rejected under 35 U.S.C. 102(e) as being anticipated by Hubis et al., US

patent 6,343,324.

In reference to claim 1:

Hubis et al. (Column 11, lines 45-57) & (Figure 3b) & (Column 14, line 40 – Column 15, line

52) discloses a method for use in a computer system including a plurality of devices, a shared

resource shared by the plurality of devices, and a network that couples the plurality of devices to

the shared resource, the method including acts of:

- In response to one of the plurality of devices attempting to access the shared resource and

  representing itself to the shared resource as a first device, determining whether the one of

  the plurality of devices is attempting to access the shared resource through a physical

  connection through the network that is different than a first physical connection through

  the network used by the first device to access the shared resource, where the access path

  qualifier is determined by the WWN (Column 15, lines 50-52) and comparing it with the

  table entries.

- When it is determined in the fact that one of the plurality of devices is attempting to

  access the shared resource through a connection through the network that is different than

the first physical connection, denying the attempted access by the one of the plurality of

devices to the shared resource, when the access path is found not to be the same, the new

host will be denied access. (Column 12, lines 27-35)

In reference to claim 3:

Hubis et al. (Column 9, line 63 – Column 10, line 8) discloses the method of claim 1, wherein

the network is a Fibre Channel fabric, wherein the one of the plurality of devices and the first

device each has an assigned world wide name (WWN) and a fabric identifier(fabric ID), where

the fabric ID is the fibre ID.

- Wherein the method further includes a step of storing the WWN and the fabric ID of the

    first device in response to an access by the first device to the shared resource (Column 9,

    line 63 – Column 10, line 8)

- Wherein the act (a) is performed in response to an access, that occurs after the access by

    the first device, by the one of the plurality of devices to the shared resource, where the

    comparing is done by trying to access the logical volume (Column 12, lines 27-35) and

    includes acts of:

    o Examining a value of the WWN presented by the one of the plurality of devices to

        the shared resource to determine that the one of the plurality of devices is

        representing itself as being the first device, where the WWN is examined.

    o Comparing a value of the fabric ID presented by the one of the plurality of

        devices to the stored fabric ID for the first device, where the fabric ID is the fiber

ID and is used to verify the access path, also used to identify the host. (Column 10, lines 33-40) & (Column 9, line 63 – Column 10, line 8)

o Determining that the one of the plurality of devices is attempting to access the shared resource through a physical connection through the network that is different than the first physical connection when the value of the fabric ID presented by the one of the plurality of devices mismatches the stored fabric ID for the first device, where the fabric ID is the fiber ID which determines the access path is used by the access controller to check if its valid (Column 10, lines 37-40), and where the fiber ID is further compared against the stored fabric IDs in the WWN table entry. (Column 14, lines 13-22, lines 53-56)

In reference to claim 4:

Hubis et al. (Column 9, line 63 – Column 10, line 8) discloses the method of claim 1, wherein the network employs a protocol wherein the one of the plurality of devices and the first device each has a first identifier that uniquely identifies the device in a manner that is independent of a physical configuration of the computer system and a second identifier that uniquely identifies the device in a manner that is dependent upon the physical configuration of the computer system

- Wherein the method further includes a step of storing the first and second identifiers of the first device in response to an access by the first device to the shared resource. (Column 9, line 63 – Column 10, line 8)

- Wherein the act (a) is performed in response to an access, that occurs after the access by the first device, by the one of the plurality of devices to the shared resource, where the

comparing is done by trying to access the logical volume (Column 12, lines 27-35) and

includes acts of:

- o Examining a value of the first identifier presented by the one of the plurality of

  devices to the shared resource to determine that the one of the plurality of devices

  is representing itself to be the first device, where the WWN is examined.

- o Comparing a value of the second identifier presented by the one of the plurality of

  devices to the stored value of the second identifier for the first device, where the

  fabric ID is the fiber ID and is used to verify the access path, also used to identify

  the host. (Column 10, lines 33-40) & (Column 9, line 63 – Column 10, line 8)

- o Determining that the one of the plurality of devices is attempting to access the

  shared resource through a physical connection through the network that is

  different than the first physical connection through the network that is different

  than the first physical connection when the value of the second identifier

  presented by the one of the plurality of devices mismatches the stored value of the

  second identifier for the first device, where the fabric ID is the fiber ID which

  determines the access path is used by the access controller to check if its valid

  (Column 10, lines 37-40), and where the fiber ID is further compared against the

  stored fabric IDs in the WWN table entry. (Column 14, lines 13-22, lines 53-56)

In reference to claim 6, 7 , 8:

Hubis et al. (Figures 1 and Figures 2) discloses a process by the entire system that performs

actions by the partially by storage system, outside the storage system, and a device disposed

between the storage system and network.

In reference to claim 23:

Hubis et al. (Column 9, line 63 – Column 10, line 8) discloses a method for use in a computer

system including a plurality of devices, a storage system shared by the plurality of devices, and a

network that couples the plurality of devices to the storage system, wherein the network employs

a protocol wherein each of the plurality of devices has a first identifier that uniquely identifies

the devices in a manner that is independent of a physical configuration of the computer system

and a second identifier that uniquely identifies the device in a manner that is dependent upon the

physical configuration of the computer system, the method including acts of:

- In response to a login of a first device of the plurality of devices to the storage system,

  storing the first and second identifiers of the first device, where the values are stored

  upon accessing the fiber switch to allow access paths to be assigned.   (Column 9, line 63

  – Column 10, line 8) & (Column 10, lines 30-40)

- In response to an attempt, subsequent to the act (a), by one of the plurality of devices to

  login to the storage system while representing itself to the storage system as the first

  device, determining whether the one of the plurality of devices is attempting to login to

  the storage system through a physical connection through the network that is different

than a first physical connection through the network used by the first device to login to

the storage system in the act(a), including acts of:

  o (b1) examining a value of the first identifier presented by one of the plurality of

     devices to the storage system to determine that the one of the plurality of devices

     is representing itself to be the first device, where the WWN is examined.

     (b2) comparing a value of the second identifier presented by one of the plurality

     of devices to the stored value of the second identifier for the first device (Column

     9, lines 50-57)

     (b3) determining that the one of the plurality of devices is attempting to login to

     the storage system through a physical connection through the network that is

     different than the first physical connection when the value of the second identifier

     presented by the one of the plurality of the devices mismatches the stored value of

     the second identifier for the first device, where the physical connection is an

     access path. (Column 10, lines 33-40)

     c) when it is determined in the act (b3) that the one of the plurality of devices is

     attempting to login to the storage system through a physical connection through

     the network that is different than the first physical connection, denying the

     attempted login by the one of the plurality of devices to the storage system,

     (Column 12, lines 4-35) & (Column 11, lines 45-57) where the host to controller

port information is the access path disclosed by the fiber ID, and accessed is

denied if the WWN, LUN, and host-controller-port information don't match.

In reference to claim 24:

Hubis et al. discloses the method of claim 23, wherein the network is a Fibre Channel fabric,

wherein the first identifier is a world wide name (WWN) and the second identifier is a fabric

identifier(fabric ID);

- Wherein the act(a) includes an act of; in response to a login of first device to the storage

  system, storing the WWN and the fabric ID of the first device, where the values are

  stored when the device initially logs into the fabric in order to have an access path.

  (Column 9, line 63- Column 10, line 8)

- Wherein the act(b1) includes an act of examining a value of the WWN presented by the

  one of the plurality of devices to determine that one of the plurality of devices is

  representing itself to be the first device, where the WWN is examined for in the WWN

  table. (Column 14, lines 45-55)

- Wherein the act(b2) includes an act of comparing a value of the fabric ID presented by

  the one of the plurality of devices to the stored value of the fabric ID for the first device,

  where the fabric ID is compared in how it maps to the WWN table. (Column 14, lines

  13-20, 45-55)

- Wherein the act(b3) includes an act of determining that the one of the plurality of devices

  is attempting to login to the storage system through a physical connection through the

network that is different than the first physical connection when the value of the fabric ID

presented by the one of the plurality of devices mismatches the stored value of the fabric

ID for the first device, (Column 12, lines 4-35) & (Column 11, lines 45-57) where the

host to controller port information is the access path disclosed by the fiber ID, and

accessed is denied if the WWN, LUN, and host-controller-port information don't match.

In reference to claim 27:

Hubis et al. discloses a method for use in a computer system including a network and plurality of

devices coupled to the network, the network employing a protocol wherein each of the plurality

of devices has a first identifier that uniquely identifies the device in a manner that is independent

of a physical configuration of the computer system and a second identifier that uniquely

identifies the device in a manner that is dependent upon the physical configuration of the

computer system, the network including at least one network component that assigns a unique

value for the second identifier to each of the plurality of devices that is logged into the network,

the method including acts of:

    a) in response to one of the plurality of devices attempting to login to the network and

        representing itself to the network as a first device, determining whether the one of the

        plurality of devices is attempting to login to the network through a port that is different

        than a first port of the network through which the first device previously logged into the

        network, where the host-to-controller port or the access path is determined by the fiber ID

        comparison. (Column 10, lines 33-40)

- when it is determined in the act (a) that the one of the plurality of devices is attempting to

  access the network through a port that is different than the first port, denying the

  attempted login by the one of the plurality of devices to the network, (Column 12, lines 4-

  35) & (Column 11, lines 45-57) where the host to controller port information is the access

  path disclosed by the fiber ID, and accessed is denied if the WWN, LUN, and host-

  controller-port information don't match.

In reference to claim 29:

Hubis et al. (Column 11, lines 45-58) discloses the method of claim 27, further including an act

of preventing at least one of the plurality of devices from transmitting information through the

network while representing itself with a value for the second identifier that differs from its value

assigned by the at least one network component, where the information is prevented from being

transmitted by the logon to the volume being denied.

In reference to claim 61:

Hubis et al. discloses the apparatus of claim 57, wherein the at least one controller includes:

- Means, responsive to the login of a first device of the plurality of devices to the storage

  system, to store the first and second identifiers of the first device in the storage device,

  where the fiber channel ID, the LUN, and the WWN are stored upon accessing the fiber

  switch to allow access paths to be assigned.   (Column 9, line 63 – Column 10, line 8) &

  (Column 10, lines 30-40)

- Means, responsive to an attempt, after the login by the first device, by one of the plurality of devices to login to the storage system, while representing itself to the storage system as the first device, for examining a value of the first identifier presented by the one of the plurality of devices to the storage system to determine that the one of the plurality of devices is representing itself to be the first device and for comparing a value of the second identifier presented by the one of the plurality of devices to the stored value of the second identifier for the first device, where the first and second identifiers are the fiber ID and the WWN which are both compared for. The WWN is compared for in the table. (Column 11, lines 45-57) The fiber ID is used to determine the access path and is used to make a determination of the physical route (Column 10, lines 33-40) while also being compared for later in the WWN table. (Column 14, lines 50-55)

- Means for determining that the one of the plurality of devices is attempting to access the storage system through a physical connection used by the first device in logging into the storage system when the value of the second identifier presented by the one of the plurality of devices mismatches the stored value of the second identifier for the first device, where an attempt is made to match the WWN, LUN, and host-to-controller/access path/fiber ID when a request is made to access the logical volume. (Column 11, lines 45-57)

- Means for denying the attempted login by the one of the plurality of devices to the storage system when it is determined that the one of the plurality of devices is attempting to login to the storage system through a physical connection through the network that is different than the first physical connection, (Column 12, lines 4-35) & (Column 11, lines

45-57) where the host to controller port information is the access path disclosed by the

fiber ID, and accessed is denied if the WWN, LUN, and host-controller-port information

don't match.

In reference to claim 62:

Hubis et al. discloses an apparatus for use in a computer system including a network and a

plurality of devices coupled to the network, the network employing a protocol wherein each of

the plurality of devices has a first identifier that uniquely identifies the device in a manner that is

independent of a physical configuration of the computer system and a second identifier that

uniquely identifies the device in a manner that is dependent upon the physical configuration of

the computer system, (Column 9, line 62 –Column 10, line 8)

the network including at least one network component that assigns a unique value for the second

identifier to each of the plurality of devices that is logged into the network, the apparatus

comprising, where the second identifier is the fiber ID (Column 9, line 62 –Column 10, line 8):

- At least one input to be coupled to at least one of the plurality of devices, where the input

  is the access request. (Column 12, lines 28-31)

- At least one controller that is responsive to one of the plurality of devices attempting to

  login to the network and representing itself to the network as a first device, to determine

  whether the one of the plurality of devices is attempting to login to the network through a

  port that is different than a first port of the network through which the first device

  previously logged into the network, and to deny the attempted login by the one of the

  plurality of devices to the network when the one of the plurality of devices is attempting

to login to the network through a port that is different than the first port. (Column 12,

lines 28-35) & (Column 11, lines 45-57) where the host to controller port information is

the access path disclosed by the fiber ID.

In reference to claim 63:

Hubis et al. discloses (Column 12, lines 25-35) discloses the apparatus of claim 62, in

combination with a network switch to form at least a portion of the network, wherein the at least

one controller is disposed within the switch, where the controller is the array access controller

(Item 104 of Figure 1) and is clearly disposed within the Fabric of switches in Figure 2a.

Claims 2, 5, 10, 14, 17, 20, 28, 32, 33, 36, 41, 45, 48, 51, 54, 55, 56 are substantially similar to

claim 1 and are rejected for the same reasons.

Claims 9, 30, 34, 40, 58, 65 are substantially similar to claim 3 and are rejected for the same

reasons.

Claims 13, 31, 35, 44, 66 are substantially similar to claim 4 and are rejected for the same

reasons.

Claims 11, 15, 18, 21, 25, 37, 42, 46, 49, 52, 59 are substantially similar to claim 6 and are

rejected for the same reasons.

Claim 38 is substantially similar to claim 7 and is rejected for the same reasons.

Claims 12, 16, 19, 22, 26, 39, 43, 47, 50, 60 are substantially similar to claim 8 and are rejected for the same reasons.

Claim 57 is substantially similar to claim 23 and is rejected for the same reasons

Conclusion

7.   Any inquiry concerning this communication from the examiner should be directed to Thomas M Ho whose telephone number is (571)272-3835. The examiner can normally be reached on M-F from 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on **(571)272-3799.**

The Examiner may also be reached through email through Thomas.Ho6@uspto.gov

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

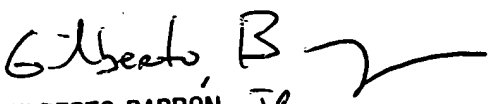| General Information/Receptionist | Telephone: 571-272-2100 | Fax: 571-273-8300 |
| Customer Service Representative | Telephone: 571-272-2100 | Fax: 571-273-8300 |

TMH

August 20th, 2006

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